

REMARKS

Drawings

A replacement sheet for Figs 1A - 2B is submitted herewith.

Title

The objection to the title is respectfully traversed. The examiner will realize in the light of the following remarks that the title is in fact descriptive.

‘112 Rejection

The rejection of claims 1, 2, 4 and 5 under 35 USC 112 is respectfully traversed as being moot in light of the amendments.

Rejection under 35 USC 102

The rejection of claims 1 - 5 under 35 USC 102(e) is respectfully traversed. Claim 1 has been amended by incorporating the limitation from claim 2 relating to a shape having substantially no horizontal surfaces. The added material stands as shorthand for having the general shape of a cone. Support is found in paragraph 51, last sentence.

In addition, claim 1 has been amended by specifying that the shape is produced by ion bombardment. Support is provided by paragraphs 4, 35 and 37.

The examiner has made a statement on page 5, first full paragraph, beginning "Re claim 2" that seems to be asserting that Malhotra shows a step of removing material "in a shape have no horizontal surfaces". Applicants disagree with such an assertion. The cited Figure 1C in Malhotra does not show what the examiner claims it shows. The bottom of the material removed is shown as being perfectly horizontal. The accompanying text also contains no suggestion that the removed material leaves a non-planar surface.

The rejection of claims 1, 3 - 5 under 35 USC 102 as being anticipated by Rozbicki is also respectfully traversed. Claim 1, as amended, requires that there be a non-planar surface in the lower aperture. Rozbicki, in the cited figures, clearly shows a lower aperture with a planar surface in Fig 2D and 2E.

Rejection under 35 USC 103

The rejection of claims 6- 10 under 35 USC 103(a) is also respectfully traversed.

Malhotra is not available as prior art under 35 USC 103(a) because of the provisions of 35 USC 103(c). Since Malhotra (and the present inventors) were under an obligation to assign the invention to IBM, '103(c) excludes that reference as prior art.

In addition, the cited case is not relevant because it assumes that the shape (or parameter) in question is known in the art and that the applicant is claiming a sub-range of that parameter (cone-shape in this case).

In this case, however, contrary to the examiner's assertions, there is no suggestion whatsoever in the cited references that a cone shape in the lower aperture could be achieved or that there would be any benefit from doing so. Both the references show a perfectly flat bottom (horizontal surface) on the lower aperture.

In addition, Applicants traverse the examiner's assertion that there is no disclosure of the critical nature of the shape. As indicated in the enclosed declaration, the specification does show to one skilled in the art that the shape is critical to achieving a benefit of the invention and that the result is unexpected.

The accompanying declaration provides support for the proposition that the present specification indicates to one skilled in the art the importance of the relevant passages.

For the foregoing reasons, allowance of the claims is respectfully solicited.

Respectfully submitted,

by:


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